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Liu

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(54) **DETACHABLE STACKING CHAIRS**

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(52) **U.S. Cl.** **297/239**; 297/440.1; 297/445.1; 297/440.21
(58) **Field of Search** 297/239, 440.1, 297/440.15, 440.14, 440.19, 451.1, 445.1, 446.2, 448.1

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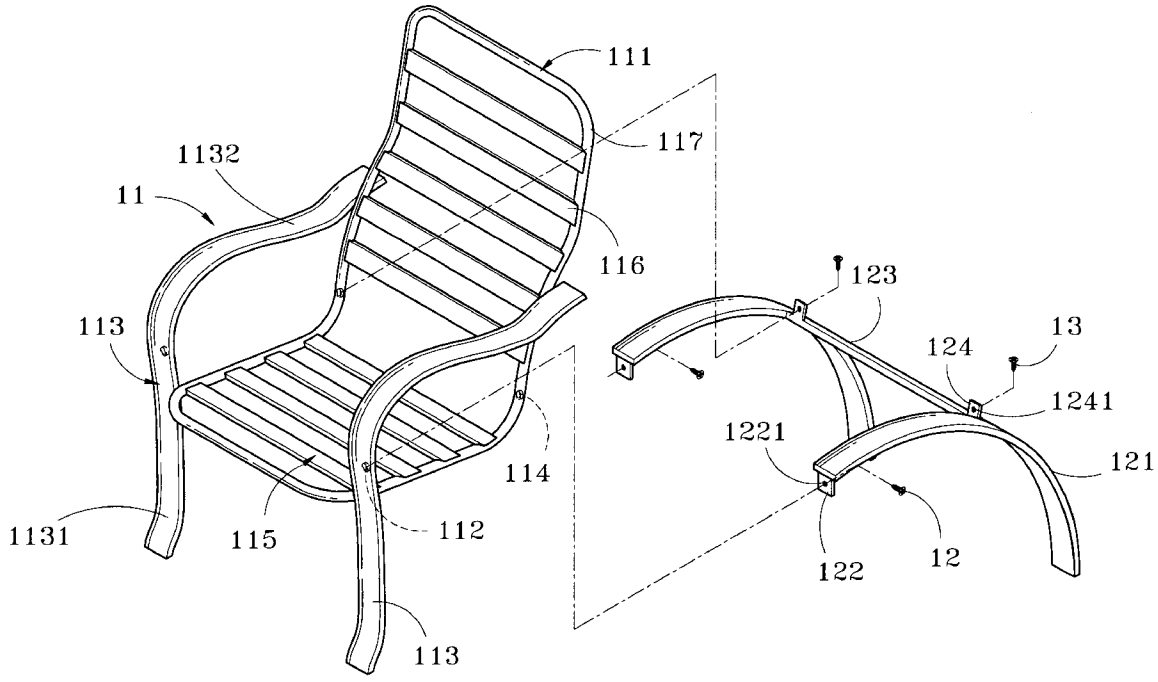
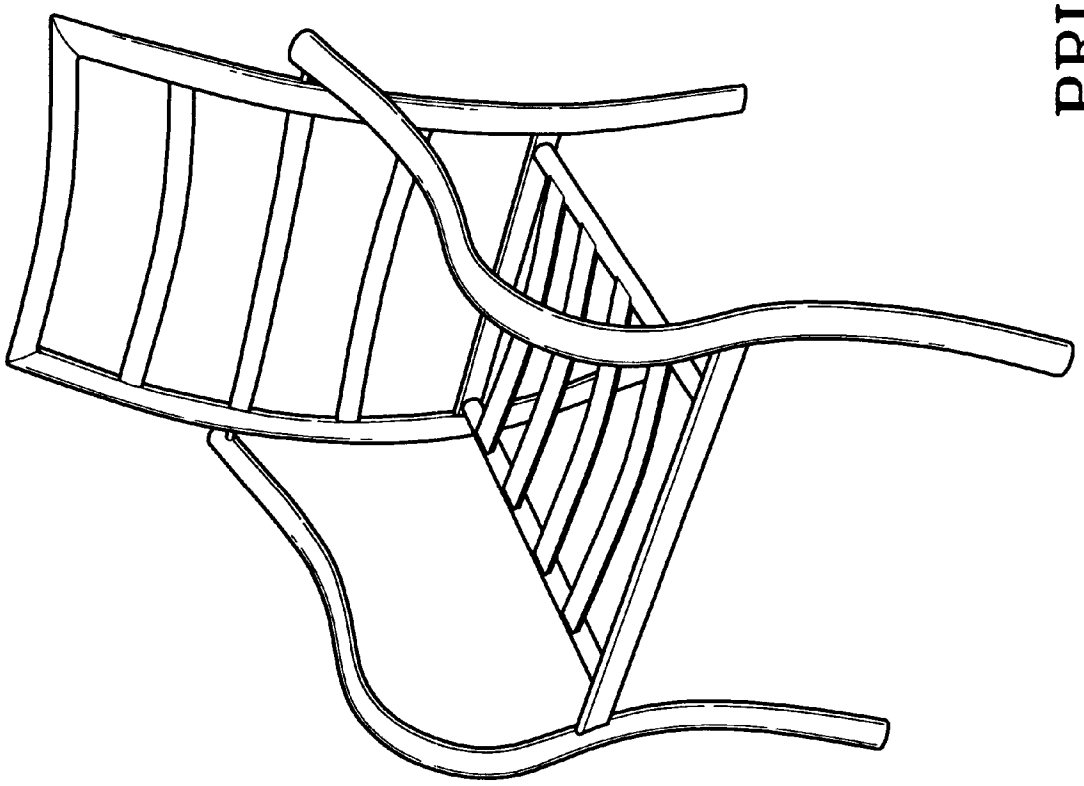
(57) **ABSTRACT**

A detachable stacking chair includes a chair bracket for seating people and two front legs fastened to two sides of the chair bracket having respectively first fastening sections and second fastening sections formed thereon, and a pair of rear legs having first anchor sections and second anchor sections located thereon matching respectively the first fastening sections and the second fastening sections. The first anchor sections and the second anchor sections may be fastened respectively to the first fastening sections and the second fastening sections through first and second fasteners to compete a chair. The rear legs are detachable from the chair bracket and the front legs for stacking separately to save storing space.

2 Claims, 5 Drawing Sheets





PRIOR ART Fig. 1

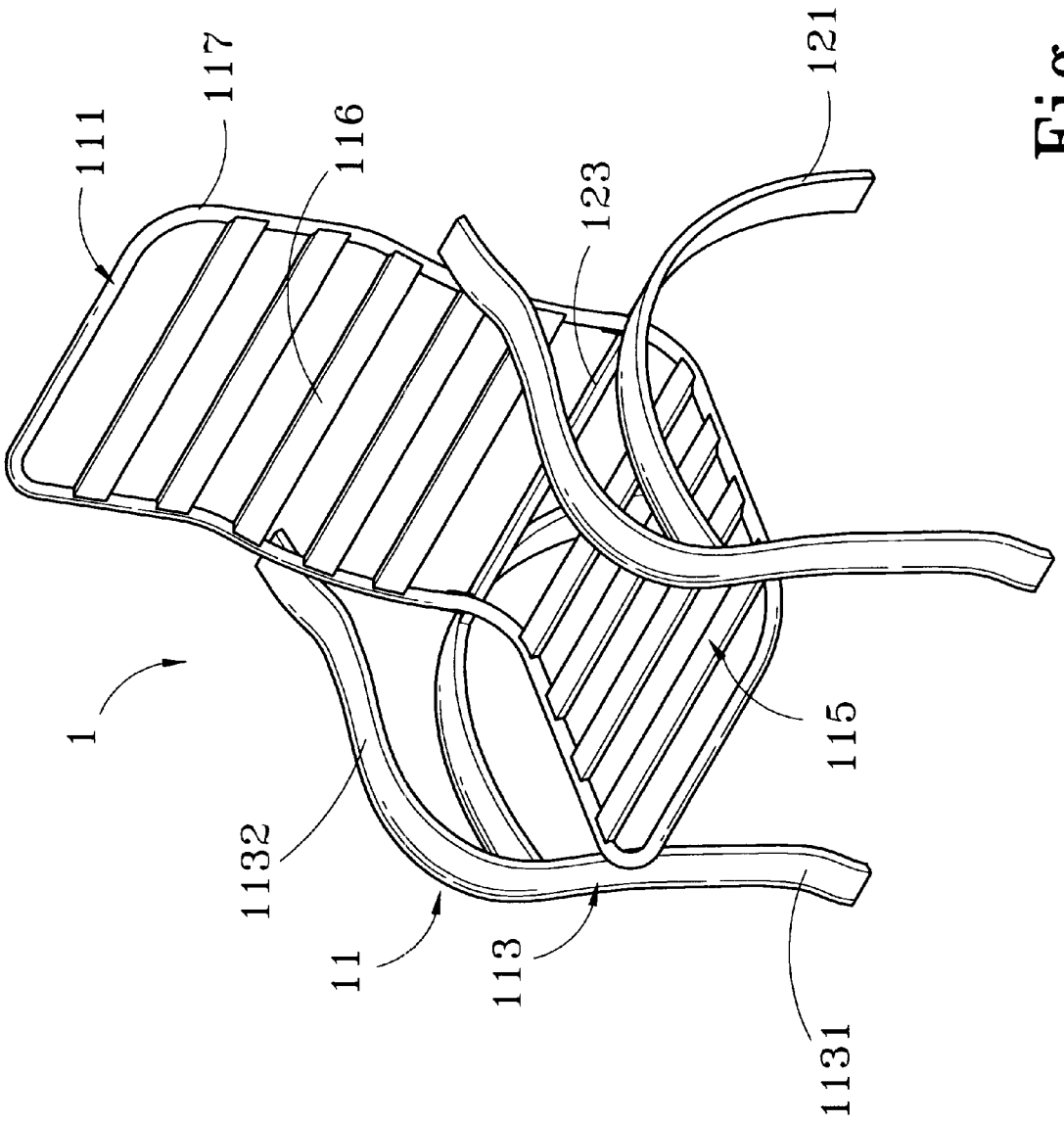


Fig. 2

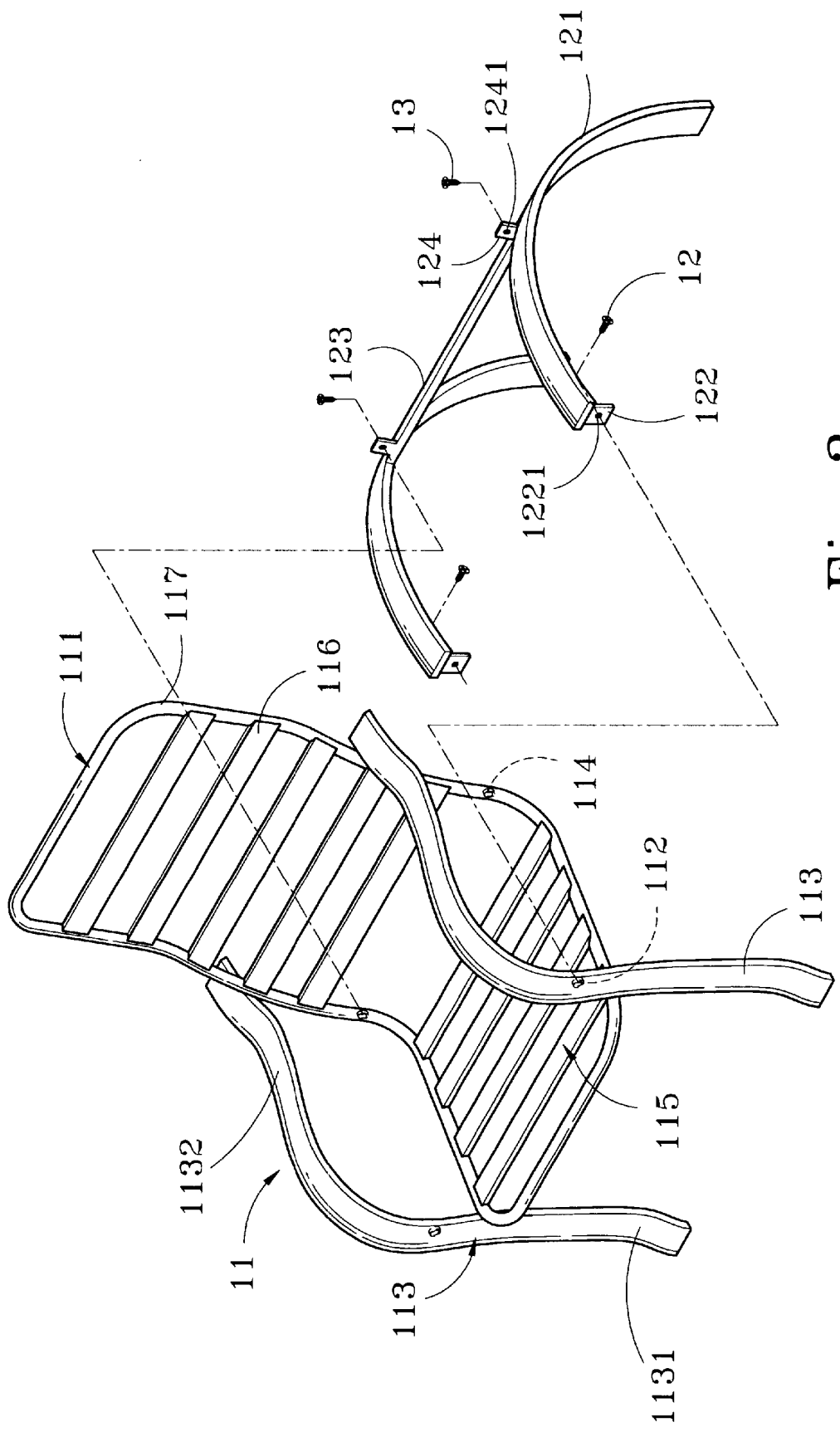

121
1241
13
124
12
123
122
1221
117
111
116
114
112
113
115
1132
11
113
1131

Fig. 3

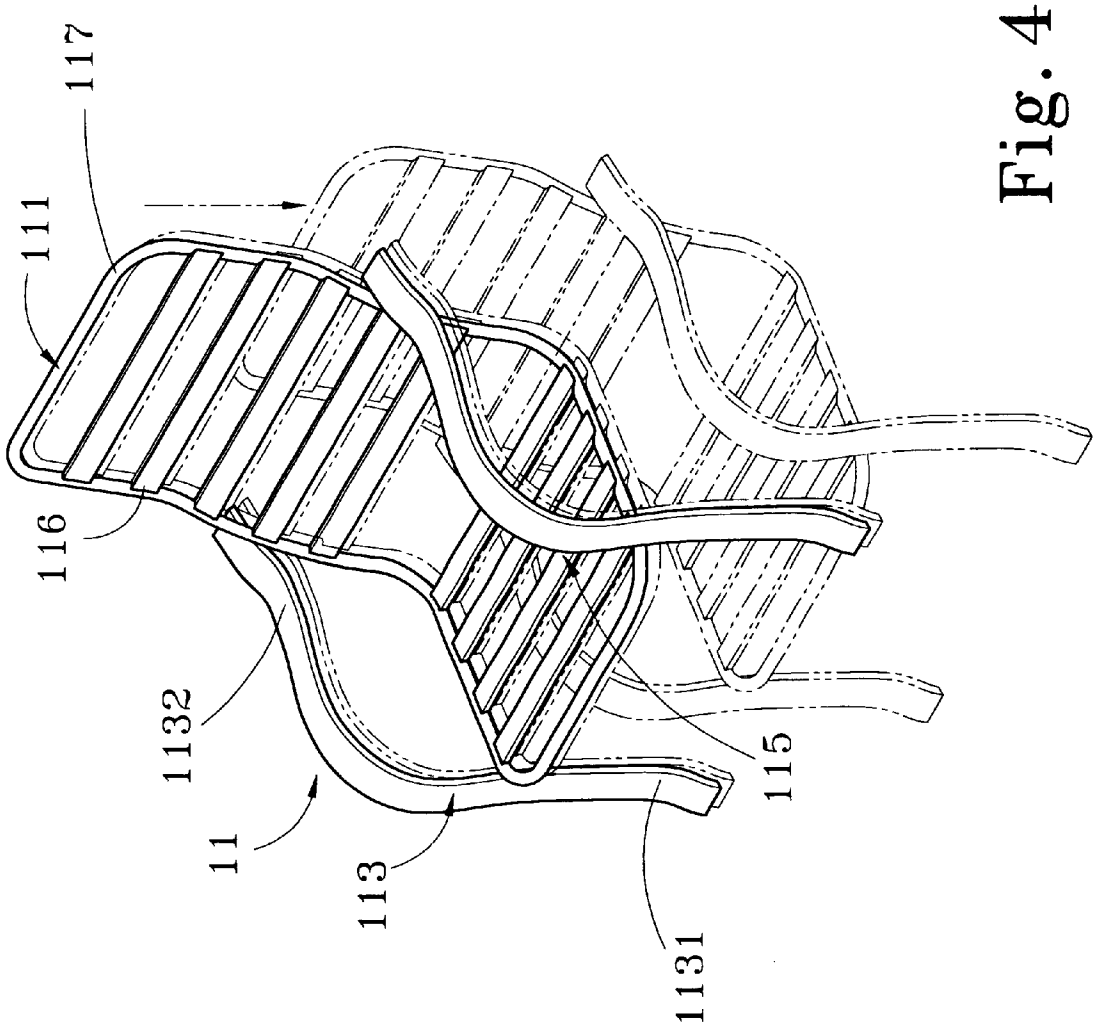


Fig. 4

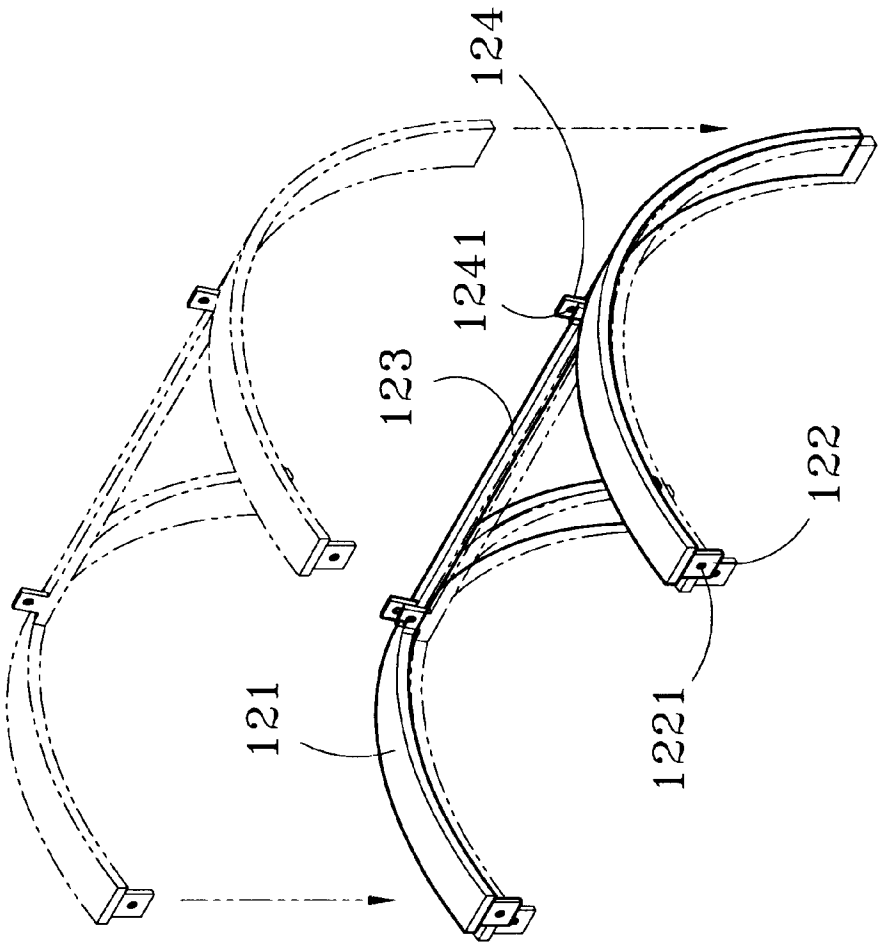


Fig. 5

DETACHABLE STACKING CHAIRS

BACKGROUND OF THE INVENTION

The present invention relates to detachable stacking chairs and particularly a chair that has detachable rear legs and a chair bracket for stacking separately to save storing space.

A wide variety of chairs are available on the market place these days. Conventional chairs usually have orthodox and angular designs. Whereas, the designs and shapes of the contemporary chairs tend to be singular and exotic to cater a wide spectrum of consumers' tastes. Many people are living in the crowd cities and restrictive resident environments. A lot of families have very limited living space, and have to prepare extra chairs for visiting relatives and friends, and to put away the chairs when not in use. Hence to reduce the storing size of the products to better utilize house space is critical. As a result, to make the products multi-functional and to make space utilization more flexible are the prevailing design trends nowadays.

FIG. **1** shows a conventional fixedly constructed chair which includes a back frame extending to form rear legs, a seat frame and front legs extending to form armrests. In order to make the chair firm and sturdy, the elements are generally fastened by soldering. As a result, the chairs are difficult to stack one upon another whatever their shapes and forms. Hence they usually occupy a lot of space, and transportation costs are high and becomes a heavy burden to the producers. Too much space requirement also creates a lot of problems for users. To achieve stacking effect, some chairs have reserve selected space between the seat frame and armrests to allow the rear legs to slip in. Nevertheless, as shown in the drawing, the chairs still cannot be stacked closely and ample space still needed. Moreover, such a design has to shrink the size of the seat frame or increase the total size of the chair. Production costs will also become higher. In addition, during stacking the chairs, the pointed ends of the legs could scratch and damage the coating of the seat frame or back frame of the chair located at the lower position and result in spoiling the appearance of the chair. It impairs the design object of good appearance.

SUMMARY OF THE INVENTION

The primary object of the invention is to resolve the foregoing disadvantages. The invention provides a set of rear legs detachable from a chair bracket and front legs such that they may be stacked separately to save storing space of the chairs. The chair bracket and two front legs fastened to two sides of the chair bracket have respectively first and second fastening sections. The two rear legs have first and second anchor sections matching and fastenable to the first and second fastening sections through first and second fasteners so that the rear legs may be fastened to the chair bracket and front legs to complete the chair.

The foregoing, as well as additional objects, features and advantages of the invention will be more readily apparent from the following detailed description, which proceeds with reference to the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a schematic view of a conventional stacking chair.

FIG. **2** is a perspective view of the invention.

FIG. **3** is an exploded view of the invention.

FIG. **4** is a schematic view of a chair bracket of the invention under stacking.

FIG. **5** is a schematic view of the rear legs of the invention under stacking.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to FIGS. **2** and **3**, the chair **1** of the invention includes a chair bracket **11** for seating people and two front legs **113** fastened to two sides thereof with first fastening sections **112** and second fastening sections **114** formed respectively on the front legs **113** and the chair bracket **11**, and two rear legs **121** having first anchor sections **122** and second anchor sections **124** matching and fastenable respectively to the first and second fastening section **112** and **114** by means of first and second fasteners **12** and **13**. The rear legs **121** may be detached from the chair bracket **11** and front legs **113** such that the separated rear legs **121** may be stacked together, and the separated chair bracket **11** and front legs **113** may also be stacked for saving space.

The chair bracket **11** includes a frame **117** with a plurality of beams **116** fastening thereon. The frame **117** is bent to form a seat section **115** and a backrest **111**. Each front leg **113** includes a support section **1131** fastening to the seat section **115** and an armrest **1132** bending upwards and extending rearwards from the support section **1131** for soldering to the backrest **111**. Each rear leg **121** has a front end integrally bent and extended to form the first anchor section **122** which has a first aperture **1221** formed thereon to match the first fastening section **112**. There is a rear support rod **123** bridging the two rear legs **121** at the bending section of the chair bracket **11** to provide a stronger loading support. The rear support rod **123** has the two jutting second anchor sections **124** located thereon to match the second fastening section **114**. Each second anchor section **124** has a second aperture **1241** formed thereon. The first and second aperture **1221** and **1241** are screw bores with internal screw threads. The first and second fasteners **12** and **13** are screws with external screw threads.

Referring to FIGS. **4** and **5**, the first and second fasteners **12** and **13** may be loosened and disengaged from the first and second fastening section **112** and **114**, and the first and second apertures **1221** and **1241** to separate the rear legs **121** from the chair bracket **11** and front legs **113**. Then the chair bracket **11** and front legs **113** may be stacked separately, while the rear legs **121** may also be stacked separately. Finally, the stacked rear legs **121** may be placed over the seat section **115**. Hence the size of the chairs can be greatly decreased to reduce transportation costs for the producers. And users may also save a lot of storing space.

While the preferred embodiment of the invention has been set forth for the purpose of disclosure, modifications of the disclosed embodiment of the invention as well as other embodiment thereof may occur to those skilled in the art. Accordingly, the appended claims are intended to cover all embodiments which do not depart from the spirit and scope of the invention.

What is claimed is:

1. A detachable stacking chair comprising:

a) a chair bracket for seating people, the chair bracket including a pair of sides, a front leg secured to each side, each front leg having a first fastening section, the chair bracket having a pair of second fastening sections;

b) a pair of rear legs, each rear leg having a first anchor section defined by a front end of the rear leg being integrally bent and extended, the first anchor section having a first fastener aperture corresponding to each first fastening section;

c) a support rod bridging the rear legs, the support rod including a pair ofjutting second anchor sections, each second anchor section having a second fastener aperture corresponding to each second fastening section; and

d) a first fastener engagable between each first fastening section and each first anchor section, and a second fastener engagable between each second fastening section and each second anchor section for detachably securing the rear legs to the front legs and chair bracket and forming the completed chair.

2. The detachable stacking chair of claim **1** wherein each of the first and second fastening apertures having an internal screw thread and each first and second fastener being a screw.

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